

Elevator Compliance Manual



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Record of Revision

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INTRODUCTION

History

Elevators have been inspected by State inspectors since the 1940's. Until the 1999 legislative session elevator inspections were performed under the general authority of the Labor (formerly Industrial) Commission. During the 1999 legislative session Chapter 7 of the Labor Commission Act was amended to include specific provisions for elevator and escalator safety provisions.

Relationship of Utah Code, Labor Commission Rules and Elevator Compliance Manual

The Utah Code consists of all statutes enacted by the Legislature, including the Utah Elevator and Escalator Safety Act. The Act, found in Title 34A Chapter 7, Part 2 (see Appendix A), establishes the minimum standards for installation and operation of elevators in Utah. The Act also authorizes the Labor Commission to adopt rules to enforce the Act. The Elevator Rules, (see Appendix B) clarify elevator requirements. Like the Act itself, these rules also have the force of law. The Utah Elevator Compliance Manual provides details as to how the Division of Safety has implemented the Act and regulations.

This manual was developed to provide architects, engineers, building officials, elevator installation contractors and elevator owners and users with an easy-to-use guide to compliance with Utah's elevator laws. Since the manual does not have the force of law, any challenge to a requirement listed in this manual will be resolved by enforcing the regulations of the applicable statute or rule.

National Standards Adopted

By Rule, Utah has adopted the following Codes and Standards to regulate elevators in Utah: (see Appendix B Section R616-3-3 for specific addenda in effect):

- A. ASME A17.1 - 2000 Safety Code for Elevators and Escalators
- B. ASME A17.3 - 2002 Safety Code for Existing Elevators and Escalators. (This code is adopted for regulatory guidance only for elevators classified as remodeled elevators by the Division of Safety)
- C. ASME A90.1-1992, Safety Standard for Belt Manlifts
- D. ANSI A10.4-1990, Safety Requirements for Personnel Hoists and Employee Elevators for Construction and Demolition Operations
- E. 2000 International Building Code
- F. ICC/ANSI A117.1-1998 Accessible and Usable Buildings and Facilities
- G. Safety Standard for Platform Lifts and Stairway Chairlifts, A18.1

Note: The ASME A17.1 Code is published approximately every three years with revisions issued as addenda every year. The revisions become mandatory only when formally adopted by Rule.

Public Participation

The Safety Division of the Labor Commission uses an Elevator Safety Review Board for consultation on safety, technical and economic issues associated with the regulation of elevators in Utah. Members of this board represent elevator designers, installers, owners and users. Due to the significant role elevators play in providing accessibility for disabled persons this perspective is also represented on the Board. Additional personnel will be added to the Board if it is determined that a specific interest should be represented. Current members of this board include:

Name	Company/Organization	Representing
Ken Crosby	Kone, Inc	Elevator Companies
Brent R. Halladay	State Fire Marshal Office	Fire Marshals
Rex Taylor	LDS Church	Churches
Steve Hermansen	Davis County Schools	School Districts
Barry Smith	Hart Fisher Smith & Associates	Architects
Tony Hall	Schindler Elevator Corporation	Elevator Companies

In addition to consultation provided by the Board, the Division of Safety welcomes comments and suggestions from others in the elevator industry or interested members of the public.

PART I - DEFINITIONS OF TERMS

Note - A comprehensive list of technical elevator definitions can be found in Section 3 of the Safety Code for Elevators and Escalators, ASME A17.1 In the following definitions the term "elevator" is used in a general sense, unless the context requires a more limited meaning application, and includes all devices which fall under the jurisdiction of the Utah Labor Commission Safety Division.

1. **ACT** - the Elevator and Escalator Safety Act which was enacted as Title 34A Chapter 7 Part 2 Utah Code Annotated.
2. **ALTERATION** - any change to equipment other than maintenance, repair, or replacement.
3. **APPLICABLE CODE** - the Code that was in effect at the time installation or modernization of an elevator commenced.
4. **APPROVED** - approved by the Labor Commission.
5. **ASME** - the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016.
6. **AUTHORITY HAVING JURISDICTION** - the organization, office, or individual responsible for enforcement of Safety Codes for Elevators (R616-3-3).
7. **BUFFER** - a device installed in the pit designed to stop a descending car or counterweight beyond its normal limit of travel by absorbing and dissipating the kinetic energy of the car or counterweight
8. **BUILDING CODE** - the Building Code adopted by the Utah Department of Commerce.
9. **BUILDING OFFICIAL** - the officer or other designated authority charged with the administration and enforcement of the Building Code.
10. **CAR** - the load-carrying unit including its platform, car frame, enclosure and car door or gate.
11. **CERTIFIED INSPECTOR** - an inspector who is certified by an ASME accredited agency to perform elevator inspections.
12. **CERTIFICATE OF COMPETENCY** - a certificate issued to a person who has passed the examination prescribed by the Commission.
13. **CERTIFICATE OF INSPECTION** - a certificate issued by the Labor Commission for the operation of an elevator as required by the Act.
14. **CERTIFICATE INSPECTION** - an inspection, the report of which is used by the

Labor Commission as justification for issuing, withholding or revoking the certificate of inspection.

- A. **ACCEPTANCE INSPECTION** - the initial inspection and tests of new or altered equipment to check for compliance with applicable Code requirements.
 - B. **PERIODIC INSPECTION** - routine inspection and tests plus additional detailed examination and operation of equipment at specified intervals witnessed by an inspector to check for compliance with the applicable Code requirements.
 - C. **ROUTINE INSPECTION** - the examination and operation of equipment at specified intervals by an inspector to check for compliance with the applicable Code requirements.
 - D. **SPECIAL INSPECTION** - an inspection, performed upon request, under conditions outside of the normal inspection process used to issue a certificate of inspection (permit to operate)
- 15. **CODE** - a general term used to describe the requirements of any of the adopted national standards.
 - 16. **COMMISSION** - the Labor Commission of the State of Utah.
 - 17. **COMMISSIONER** - the Commissioner of the Labor Commission.
 - 18. **CONDEMNED ELEVATOR** - an elevator deemed unsafe to operate under any condition by a state elevator inspector. A condemned elevator shall be rendered mechanically and electrically incapable of operation.
 - 19. **DIVISION** - the Safety Division of the Labor Commission.
 - 20. **EARTHQUAKE PROTECTIVE DEVICES** - a device or group of devices which serve to regulate the operation of an elevator or group of elevators in a predetermined manner during or after an earthquake.
 - 21. **ELEVATOR** - a hoisting and lowering mechanism:
 - (i) equipped with a car or platform; and
 - (ii) that moves in guides in a substantially vertical direction
 - 22. **ESCALATOR** - a stairway, moving walkway, or runway that is:
 - (i) power-driven;
 - (ii) continuous; and
 - (iii) used to transport one or more individuals.

23. **FIRE FIGHTER'S SERVICE**
 Phase I (Recall) - the operation of an elevator wherein it is automatically or manually recalled to a specific landing and removed from normal service. Typically the car returns to the main floor and is parked with the doors open. Phase I may be activated by a key switch or a smoke detector.
 Phase II (In-Car Fire Service) - a key switch in the car that allows the elevator to be operated by emergency personnel.
24. **HOISTWAY** - an opening through a building or structure for the travel of elevators extending from the pit to the roof or an intermediate floor.
25. **INSPECTOR** - a Qualified Elevator Inspector authorized by the Commission to perform elevator safety inspections in Utah.
- A. **CHIEF ELEVATOR INSPECTOR** - the Chief Elevator Inspector designated by Labor Commissioner.
- B. **STATE INSPECTOR** - an inspector holding a certificate of competency, and employed by the State of Utah.
- C. **CONTRACT INSPECTOR** - an inspector under contract to the Commission for the purpose of performing elevator safety inspections in Utah.
26. **INSTALLATION** - a complete elevator, as defined in the Act, including its hoistway, hoistway enclosures and related construction, and all machinery and equipment necessary for its operation.
- A. **EXISTING INSTALLATION** - an installation that has been completed or is under construction prior to the date of adoption of the current Code.
- B. **NEW INSTALLATION** - an installation not classified as an existing installation by definition or an existing elevator moved to a new location.
27. **JURISDICTION** - having legal authority per Utah Code
28. **MACHINE ROOM** - a room dedicated exclusively to housing the driving and control parts (driving machine, controller, selector, motor generator, etc.) of an elevator.
29. **MAINTENANCE** - a process of routine examination, lubrication, cleaning, adjustment and replacement of parts for the purpose of ensuring performance in accordance with the applicable Code requirements.
30. **MODIFICATION** - the process of changing an item that requires revision of the existing design requirements.

- 31. **NATIONAL ASSOCIATION OF ELEVATOR SAFETY AUTHORITIES (NAESA)** - an independent certifying agency for the qualification of state elevator inspectors to the ASME Standard for the Qualification of Elevator Inspectors.
- 32. **ORIGINAL CODE OF CONSTRUCTION** - the Code in effect at the time the elevator contract was signed. This Code will continue to apply to that elevator until the elevator is remodeled or moved to a new location.
- 33. **OWNER OR USER** - any person, corporation or other entity responsible for the installation, operation and maintenance of any elevator within Utah.
- 34. **PENETRATE A FLOOR** - to pass through or pierce a floor in such a way that the opening has a continuous perimeter and is provided only to allow the equipment to pass through the floor.
- 35. **PIT** - that portion of a hoistway extending from the sill level of the lowest landing to the floor at the bottom of the hoistway.
- 36. **QUALIFIED ELEVATOR INSPECTOR (QEI)** - an inspector who has met the standard for the qualification of elevator inspectors published by the American Society of Mechanical Engineers.
- 37. **REGULATORY AUTHORITY** - the person or organization responsible for administration or enforcement of the Safety Division rules governing design, construction, testing, maintenance, or alteration of equipment covered by Utah Code 34A-7-202 for elevators and escalators.
- 38. **REMODELED ELEVATOR** - an elevator which has undergone an alteration which could affect the operating characteristics of the elevator.
- 39. **REPAIR** - the process of rehabilitation or replacement of parts that are basically the same as the original for the purpose of ensuring performance in accordance with applicable Code requirements.
- 40. **REPLACEMENT** - the substitution of a device or component in its entirety with a new unit that is basically the same as the original for the purpose of ensuring performance in accordance with applicable safety code requirements.
- 41. **SAFETY DEVICE** - a mechanical device designed to perform an essential safety function without the necessity of electrical power or operating air (pneumatics). Safety devices include:
 - A. **SAFETY** - a mechanical device attached to the car frame or to an auxiliary frame, or to the counterweight frame, to stop and hold the car or counterweight under one or more of the following conditions: predetermined over speed, free fall or if suspension ropes slacken.
 - B. **PRESSURE RELIEF VALVE** - a mechanical valve actuated by inlet static

pressure and characterized by rapid opening or pop action.

- C. **RUPTURE VALVE** - a mechanical valve designed to shut upon sensing a rapid loss of pressure in the hydraulic supply line.
- 42. **SEISMIC** - of, subject to, or caused by an earthquake.
- 43. **VARIANCE** - a departure from adopted safety codes approved by the Division in writing.
- 44. **WORKING PRESSURE** - the pressure measured at the hydraulic machine when lifting car and its rated load at rated speed.

PART II - ADMINISTRATION

Note: Unless otherwise noted, the term elevator is used in a generic sense in this manual and includes escalators and all other devices which fall under the jurisdiction of the Division.

A-1 Minimum Safety Standards

All new elevators shall be designed, constructed, inspected, stamped and as listed in R616.3.3, Safety Code for Elevators.

All ASME code interpretations will be reviewed on an individual basis. Any clarification or acceptance requests must be submitted in writing to the Safety Division.

State Special - If, due to a valid impediment to compliance with the original code of construction, an elevator or escalator cannot bear the required construction code, details of the proposed construction, material specifications and calculations shall be submitted to the Chief Elevator Inspector by the owner or user. This information should be approved by a registered professional engineer experienced in elevator or escalator design prior to submission to the Chief Elevator Inspector. Approval as a "State Special" must be obtained from the Commission before construction is started.

A-2 Exemptions

The following elevators shall be exempt from the Act.

- A. Elevators under federal control or regulation.
- B. All devices listed in ASME A17.1, 1.1.2 , Safety Code for Elevators and Escalators .
- C. Elevators located in single family private residences if the elevator is installed in such a manner as to limit use to a single family.
- D. Dumbwaiters & Material Lifts - Although these devices are included in the ASME A17.1, Safety Code for Elevators and Escalators, they are not designed to transport people. They are, therefore, exempt from the Act.

In any circumstance, the owner or user may confer with the Chief Elevator Inspector regarding exemption or non exemption.

A-3 Elevator Inspector Certification

All elevator inspectors in the State be certified as a Qualified Elevator Inspector in accordance with the Standard for the Qualification of Elevator Inspectors ASME QEI-1. Utah uses the National Association of Elevator Safety Authorities International (NAESAI) as an independent certifying agency. QEI certification examinations are given at published locations by NAESAI personnel.

A-4 Contract Inspectors

As a general practice, all inspectors authorized to perform elevator safety inspections in Utah are full-time employees of the State. However, the Act allows the Division to hire contract inspectors as conditions warrant. The competency of contract inspectors will be certified by the Chief Elevator Inspector. Unless otherwise noted on the Certificate of Competency, a contract inspector will have the same authority as a State Elevator Inspector.

A-5 Conflict of Interest

An inspector or Division official shall not engage in the sale of any services, article or device relating to elevators.

A-6 Inspections

Utah elevators must pass an acceptance inspection at the completion of installation and prior to being placed in service. An elevator must also undergo a periodic (routine) inspection every two years thereafter. The Division, however, may inspect any elevator under its jurisdiction on a more frequent basis if deemed necessary. An elevator is deemed "overdue for inspection" at 30 days past the expiration date on the inspection certificate.

When an elevator with a valid Certificate of Inspection/Permit to Operate undergoes an alteration or is remodeled, the Certificate of Inspection/Permit to Operate becomes invalid. To release the altered or remodeled elevator for use by the general public, the elevator must pass an acceptance inspection conducted by the Division.

It is the elevator owner's responsibility to assure that elevators have a current safety inspection. The Division, however, tracks the status of overdue elevators and conducts inspections on overdue elevators on a priority basis. Elevators overdue for the longest period of time receive the highest priority for inspection.

It should be noted that Utah law has taken a significant departure from A17.1 inspection frequency requirements. Utah law requires a Certificate of Inspection/Permit to Operate for each elevator under the Division's jurisdiction every two years.

A-7 Routine Inspection Scheduling

Routine elevator inspections may be scheduled by calling the Safety Division at (801) 530-6850.

A-8 New and Remodel Acceptance Inspections

A written request (letter, e-mail, facsimile, etc.) for new installation and remodel acceptance inspections must be received by Division's close of business on the Friday prior to the week the inspection is desired. The request should include elevator location (building name and address), type of elevator (traction, hydraulic, etc.), and date of desired inspection. The inspections will be scheduled on a first come first served basis consistent with the availability of the inspector assigned to a particular geographical area.

A-9 Periodic Test Frequency

Periodic test frequency for elevators covered under A17.1 8.11.1.3 shall be outlined in the following table:

A17.1 Reference Section		Category One		Category Five	
	Equipment Type	Requirement	Interval	Requirement	Interval
	Periodic Tests		Months		Months
8.11.2	Electric Elevators	8.11.2.2	12	8.11.2.3	60
2.19.3	Emergency Brake	2.19.3	12	N/A	N/A
8.11.3	Hydraulic Elevators	8.11.3.2	12	8.11.3.4	60
8.11.4	Escalators and Moving Walks	8.11.4.2	12	N/A	N/A
8.11.5.1	Sidewalk Elevators	8.11.2.2 & 8.11.3.2	12	8.11.2.3 & 8.11.3.4	60
8.11.5.3	Hand Elevators	8.11.2.2	12	8.11.2.3 & 8.11.3.4	60
8.11.5.6	Special purpose personnel elevators	8.11.2.2 & 8.11.3.2		8.11.2.3 & 8.11.3.4	60
8.11.5.7	Inclined Elevators	8.11.2.2 & 8.11.3.2		8.11.2.3 & 8.11.3.4	60
8.11.5.9	Screw-column Elevators	8.11.2.2 & 8.11.3.2		8.11.2.3 & 8.11.3.4	60
8.11.5.12	Limited-Use / Limited Application Elevators	8.11.2.2 & 8.11.3.2		8.11.2.3 & 8.11.3.4	60
8.11.5.13	Construction Use Elevators	8.11.2.2 & 8.11.3.2		8.11.2.3 & 8.11.3.4	60

	Seismic Tests				
8.4.10	Electric Elevators	8.4.10.1	12	N/A	N/A
8.4.11	Hydraulic Elevators	N/A	N/A	8.4.11.2	60
8.5.4	Escalators	8.5.4	12	N/A	N/A

A-10 Certificate of Inspection (Permit to Operate)

When an inspection is performed and the inspector finds that the elevator is code compliant or has a Division-approved variance for all non-compliances, a Certificate of Inspection/Permit to Operate will be issued to the elevator owner or designated representative. In accordance with Rule 616-3-15(B), elevator companies receive the Certificate of Inspection/Permit to Operate for new installations. The elevator company, in turn, is responsible for providing the certificate to the elevator owner. The certificate will remain valid for a period of two years from the date on the Certificate of Inspection/Permit to Operate unless revoked by the Division.

A-11 “Construction Use Only” Inspections

“Construction Use Only” inspections will be performed upon request from the company installing the elevator. As a minimum, the elevator must meet the conditions specified in 5.10 of the ASME A17.1, Safety Code for Elevators and Escalators.

Under no circumstance should an elevator approved by the Division for “Construction Use Only” be accessible to the general public. If an elevator approved for “Construction Use Only” is accessible by the general public, approval for the use of the elevator will be revoked by the Division until it is brought into full compliance with applicable sections of the ASME A17.1 Safety Code for Elevators and Escalators.

The invoice for the inspection will be issued to the company installing the elevator. All “Construction Use Only” inspection fees must be paid in full before the Division will perform a final acceptance inspection for that elevator.

A-12 Acceptance Inspection Reporting

The elevator installation company is responsible for arranging services and paying all fees associated with these inspections. During the inspection the inspector performs or observes the acceptance tests in accordance with the Safety Code for Elevators and Escalators, A17.1 or other adopted codes as applicable. Since the inspector is accompanied by the elevator installation contractor, a written list of non-compliance items is provided only at the request of the elevator installation contractor. Typically, non-compliance items are marked on a new installation inspection report and also communicated verbally to the elevator installer. When the elevator successfully passes the acceptance inspection, the elevator installation company is then responsible for assuring that the elevator owner receives a copy of the Certificate of Inspection/Permit to Operate.

A-13 Routine Inspection Reporting

When a routine inspection is performed and the inspector finds that the elevator does not comply with the adopted safety code, the inspector will explain what the violations are and also document them on a inspection report and or checkoff list (this is provided to the owner), the inspector along with the owner will agree on a reinspection date of not more than 30 days of initial inspection date (a violation letter may be sent). If the violations have not been corrected on the reinspection date the owner will be invoiced for a special inspection fee (\$60.00 min.) consisting of but not limited to, inspection time, milage, travel time and food /lodging if extensive travel is necessary. For each follow up inspection the owner will be invoiced for an additional special inspection. If any violation(s) remain still uncorrected. A letter signed by the Chief Elevator Inspector, is then sent to the owner. This letter will alert the owner of the possibility of legal actions by the Division should the violations not be corrected by the date specified by the owner and inspector.

A-14 Special Inspections

Special inspections are inspections which are outside of the normal routine of the Division. Examples of special inspections include, but are not limited to, the following:

- < Expedited inspections more than one hour's drive from Division offices.
- < Re-inspections requiring more than two visits by an inspector
- < Scheduled inspections where the elevator is not completely ready for inspection upon the inspector's arrival
- < Inspections to approve an elevator for Construction Use Only
- < Routine inspections when violations are not corrected by the specified date.
- < Inspection to approve and elevator temporarily used for construction or demolition to provide transportation for construction personnel, tools and materials only.

Special inspections are invoiced at an hourly labor rate and may include inspector travel expenses. Special inspections will be approved in advance by the requesting entity. Exceptions to this are when an inspector makes more than two visits on re-inspections or when an inspector finds an elevator is not ready for scheduled acceptance inspection and is asked to remain on site while it is made ready

A-15 Inspection of Exempted Elevators

The Division will perform safety inspections of elevators that are otherwise exempt upon receiving a written request from the owner. These inspections will be performed and invoiced as Special Inspections (see section A-14). Upon completion of the inspection, the inspector will notify the owner of any safety code violations. Correction of the code violations in exempt elevators is solely at the discretion of the owner.

If the owner desires a Certificate of Inspection/Permit to Operate, violations must be corrected to the satisfaction of the inspector. The owner will also be invoiced for the appropriate certificate fee (Section A-18).

A-16 Condemned (Unsafe) Elevators

If, upon inspection, an inspector finds a elevator to be unsafe for further operation, the inspector shall promptly notify the owner and user, stating what repairs or other corrective measures are required to bring the object into compliance with standards and codes. Until such corrections have been made no further operation of the elevator shall be permitted. Unless the owner or user makes such repairs or adopts such other corrective measures promptly, the state inspector shall immediately notify the Chief Elevator Inspector. If an inspection certificate for the elevator is in force, it shall be suspended by the inspector (Chief Elevator Inspector, State Inspector or contract inspector). When reinspection establishes that necessary corrective actions have been taken and that the elevator is safe to operate, the Chief Elevator Inspector shall be notified. At that time an inspection certificate, where applicable, will be issued.

To assure that the elevator is not used while in an unsafe condition, the inspector will render the elevator mechanically and electrically incapable of operation. The inspector will apply his personal lock to the main electrical power supply of the elevator and assure that the owner has rendered the elevator mechanically inoperable. He will also install a tag stating the following:

**DANGER
DO NOT USE
BY ORDER OF
UTAH LABOR COMMISSION**

Removal of the lock or operation of a condemned elevator is a violation of Utah Code and will be prosecuted.

A-17 Accident Notification & Investigation

When an accident occurs involving an elevator, the owner or user shall promptly notify the Chief Elevator Inspector. In the event of an actual or suspected elevator malfunction, the elevator owner shall remove the elevator from service until an inspector from the Division can complete a detailed accident investigation.

In the event of an accident for which another Division of Government has lead investigative responsibility, the inspector will report to the scene commander and offer the Division's assistance. Under no circumstances will a Division inspector cross accident barriers without obtaining permission from the scene commander.

For all accidents which fall under the jurisdictional authority of the Division, a detailed accident investigation will be conducted. If, in the judgment of the investigating inspector, adjustments have been made to the elevator subsequent to the accident, he will document that judgment in his report and complete a thorough safety inspection to assure that the elevator is in a safe operating status at the time of his investigation.

If the accident investigation determines the apparent cause of the accident to be a mechanical or control failure of the elevator, the elevator will be immediately removed from service and will remain out of service until:

- the elevator has been made safe through repair, readjustment or alteration, and
- the elevator has passed reinspection to the satisfaction of a state inspector.

A-18 Fees

The Utah legislature requires that certain state agencies be self-supporting. The Utah Labor Commission Safety Division is one of those agencies and, as such, charges fees for certain services. Such fees are approved by the Utah legislature. For new and remodel installations these fees shall be paid by the installation contractor. Subsequent fees are paid by the owner or user unless other contractual arrangements exist. Failure to pay the fees may lead to collection action as well as other legal action to prevent the operation of the elevator. The fee schedule for elevator certifications and inspections follows:

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Certification/Inspection	Fee
All Existing Elevator Certifications	\$ 85.00
New Electric (Traction) Elevator Certification	\$ 700.00
New Hydraulic Elevator Certification	\$ 300.00
New Roped Hydraulic Elevator Certification	\$ 500.00
New Disabled Person Elevator Certification	\$ 200.00
New Escalator/Moving Walk Certification	\$700.00
Other New Elevator Certification	\$ 200.00
Remodeled Hydraulic Elevator Certification	\$300.00
Remodeled Electric Elevator Certification	\$500.00
Special Inspection	\$60.00/hour + expenses
Replacement Elevator Certificate	\$15.00

A-19 New Installations

The installation of new elevators is addressed directly in Utah law. The elevator company is responsible for arranging inspections, making code violation corrections and paying the invoice for the Certificate of Inspection/Permit to Operate. Because of this legal requirement, the Division will deal exclusively with the elevator company until the Certificate of Inspection/Permit to Operate is issued.

A-20 Remodeled Elevators

Remodeled elevators represent special cases in assuring elevator safety. When an elevator is remodeled, the remodeled portions must comply with the safety code in effect at the time the remodeling contract is signed. The portions of the elevator which are not remodeled must continue to meet the requirements of the current adopted edition of the Safety Code for Existing Elevators and Escalators, ASME A17.3 (See R616-3-3). Since each case is unique, owners or elevator companies involved in an elevator remodeling project should contact the Division to receive written documentation concerning the safety requirements the remodeled elevator will have to meet.

The elevator company is responsible for arranging inspections, correcting code violations, and paying the invoice for the Certificate of Inspection/Permit to Operate. Because of this legal requirement, the Division will deal exclusively with the elevator company until the Certificate of Inspection/Permit to Operate is issued.

A-21 Reinstallation of Elevators

An elevator moved and reinstalled within Utah will be considered a new installation elevator. Persons relocating or reinstalling an elevator should notify the Division. The Division will provide the elevator company or owner with written documentation of the safety standards that elevator must meet to be returned to operation.

A-22 Application of Identification Numbers

Upon completion of the installation of an elevator or at the time of the initial certificate inspection of an existing installation, each elevator shall be identified by a unique number. In the event the elevator is ever scrapped, the identification number will not be reused.

The identification number is assigned by the inspector at the initial inspection for a new installation. The initial inspection can be a special inspection for construction use only operation or the acceptance inspection to allow the elevator to be used for the general public. The identification number is attached to the crosshead of the elevator, the controller of an escalator or the data plate of a disabled person lift.

A-23 Variances

Any owner or user who believes that under his or her particular circumstances the rules and regulations promulgated by the Labor Commission are unnecessary or impose an undue burden may request a variance from the applicable rule or regulation. The variance request shall be in writing and shall specify how safety equivalent to that provided by the Rules is to be attained. The Labor Commission may grant the variance, provided that the safety of employees or general public is not adversely affected. Any variance request on a new elevator installation must be submitted by the elevator contractor performing the installation. At the Division's discretion, the elevator owner may be requested to state, in writing, his concurrence with the requested variance.

When there is a reason to believe, or upon receipt of a complaint, that a variance does not provide safety equivalent to the Commission Rules, the Labor Commission, after notice to the owner or user and complainant, may continue, suspend, revoke, or modify the conditions specified in any variance.

No statement, act, or omission of the Labor Commission, the Chief Elevator Inspector, state inspectors or contract inspectors, other than a written variance described above, shall exempt any owner or user from full compliance with the terms of any law of the State of Utah or Rule of the Labor Commission.

A-24 Americans With Disabilities Act Compliance

Compliance with the Americans with Disabilities (ADA) Act is the responsibility of the local building official. Questions regarding ADA requirements should be directed to the Office of Technical and Information Services of the Architectural and Transportation Barriers Compliance Board at (800) USA-ABLE (872-2253).

A-25 Keys to Access Firefighter Service

Safety Code for Elevators and Escalators, A17.1 allows the jurisdiction to use a uniform keyed lock box to contain the switch keys specified in 2.27.2 through 2.27.5. Utah uses this lock box system. Each jurisdiction uses different keys to unlock the lock box covers to access keys necessary for Phase I and II Firefighter's service. The following is a list of assigned key numbers for lock boxes in each jurisdiction:

Location	Key Number
Logan	6036
Ogden	154
Park City	6242
Provo	6244
Salt Lake City	007
Remainder of State	6049

A-26 Penalties

Any person, firm or corporation violating any of the provisions of Utah's elevator laws may be subject to the provisions of Utah Code 34A-7-204.

PART III - GENERAL REQUIREMENTS

G-1 Inspection of Elevators

All elevators not exempted by Utah Code or by rules promulgated by the Labor Commission and which are subject to regular inspection shall be prepared for such inspections as required in G-2. As a general practice, an inspector may contact an owner to schedule a mutually agreeable time to perform a routine elevator safety inspection. It is also normal practice for the inspector to request a representative of the owner to participate in the inspection.

The inspection of new/remodeled installations is coordinated with the elevator company installing the elevator. In the event a new installation inspection is canceled at the last minute, the inspector will perform routine inspections in that area. In this case, the inspector may not be able to give advance notice of such routine inspections.

G-2 Preparation for Inspection

The owner or user shall prepare each elevator for inspection. For new/remodeled installations this preparation is completed by the elevator installation company. Proper preparation for inspection includes verification that all control and safety devices of the elevators are connected and functioning.

If necessary, the inspector may require the owner or elevator company to isolate hazardous energy. The inspector will add his personal lock to the hazardous energy isolation to assure his personal safety.

G-3 Improper Preparations for Inspection

The elevator should be completely ready for inspection at the scheduled time for the inspection. If the inspector finds that the elevator is not ready for inspection, he will present the following options to the elevator company or owner:

1. Reschedule the inspection at a mutually agreed time. (If the elevator is located outside of Salt Lake County, the elevator company will be invoiced for the inspector's travel time and mileage.)
2. Conduct a special inspection of the elevator components which can be inspected. This inspection will be invoiced at an hourly rate (see Section A-18) and the full certificate fee will be assessed when the inspection is eventually completed.
3. Have the inspector stand-by on site until the elevator is ready for inspection. The inspector's waiting time will be invoiced at the special inspection hourly rate.

G-4 Hazardous Atmosphere

Since the elevator pit and hoistway may meet the OSHA 29 CFR 1910.146 definition of a "confined space", elevator inspectors may require atmosphere readings to assure their personal safety for entry.

G-5 Common Inspection Violations

The most common violations depend on the types of elevator and inspection.

General

1. Elevator machine room used as a storage area.
2. Equipment unrelated to the operation of the elevator installed in the elevator machine room or hoistway.
3. 24 hour communications not available for passenger elevators.
4. Full-load, five-year safety test needs to be performed.
5. Electrical box covers missing.
6. Machinery guards missing.
7. Elevator pit is not clean or dry.
8. Improper glass in elevator cars.
9. Fireman's operating signs missing from inside car or lobby.
10. Emergency light and alarm bell.

Electric (Traction)

1. Hoist ropes worn.
2. Governor rope worn.
3. Hoist ropes need to be cleaned for inspection.

Hydraulic

1. A full load test shall be performed to determine if the relief valve meets code requirements. Upon satisfactory testing the valve shall be sealed.
2. Check and seal hydraulic line rupture valve.
3. Static test unsatisfactory. Check for hydraulic system leaks.
4. Leaks in hydraulic oil lines

Escalator/Moving Walk

1. Broken step treads.
2. Broken comb teeth.

Disabled Person Lift

1. Floor penetration
2. Rise exceeding 12 feet

G-6 Seismic Requirements

The seismic requirements listed in Section 8.4 of the Safety Code for Elevators and Escalators, ASME A17.1 are required for all elevators installed in seismic risk zone 2 or greater after 1993. Seismic requirements are found in Section 1621 of the International Building Code.

Elevators installed before the seismic requirements came into effect which are then remodeled or altered may be required to incorporate certain seismic requirements. Personnel involved in remodeling or altering an existing elevator shall contact the Safety Division for which seismic requirements are to be met.

G-7 Repairs and Alterations

Sections 8.6 and 8.7 of the Safety Code for Elevators and Escalators, A17.1 should be used for elevator repairs and alterations. The Safety Code for Existing Elevators and Escalators, A17.3 will be used in the Division's determination of applicable code requirements. Each alteration will be assessed on a case by case basis by the Division and the code requirements that the altered/repaired elevator will have to meet will be documented in writing by the Division and communicated to the elevator owner and elevator company if applicable.

The following is a representative list of major alterations which would necessitate consultation with the Division for applicable code guidance:

Representative Major Elevator Alterations	
increase in rated load or speed	increase in dead weight of car
replacement, change in type, or addition of a car or counterweight safety	change in size or number of suspension ropes
change in size or type of guide rails	change in type of operation or control
change of service classification	change in power supply
replacement of a driving machine	replacement of a controller
replacement of a driving machine brake	replacement of hoistway doors

Repairs, as defined in the Safety Code for Elevators and Escalators, A17.1, do not require an inspection by a state inspector prior to the elevator being returned to service. An inspection will be performed only if requested by the owner or elevator company. If an inspection is requested, it will be invoiced as a special inspection.

G-8 Unauthorized Items in Elevator Machine Rooms

As stated in A17.1 section 8.6.4.8, using an elevator machine room for storage and installing non-elevator related equipment in the machine room are two of the most common code violations cited by state inspectors. The purpose for both of these code requirements is to limit exposure to the safety risks of the elevator equipment only to those personnel who have been properly trained to recognize and deal with such risks.

G-9 Hoistway Vents

All aspects of the hoistway ventilation will fall under the authority of the local building official and/or Fire Marshall. The State inspector may ask the building official if the vent meets code.

G-10 Refuge Space

The refuge space required on top of an elevator car provides a clear, unobstructed space for elevator repair and inspection personnel. The area required by the safety code is wide enough to accommodate full-shoulder width and high enough to accommodate a large individual in a crouched position. The existence of the minimum area required by code may be the only chance a person has to survive if certain accidents occur when a person is on top of the car. In view of this, it is highly unlikely that any variance request involving a reduction in the refuge area will be approved by the Division.

G-11 Use of Freight Elevators for Passengers

Freight elevators are not designed to routinely transport passengers. The Division will consider approving a freight elevator for temporary transport of passengers if all the requirements of 2.16.4 of the Safety Code for Elevators and Escalators, A17.1 are demonstrated to the satisfaction of a state inspector. Inspections performed to verify compliance with 2.16.4 requirements will be invoiced at the special inspection rate shown in A-18.

G-12 Conditions Not Covered by These Regulations

For any conditions not covered by this manual, the applicable provisions of the adopted safety codes will apply. If the adopted safety codes do not adequately address the condition, the Division will make rulings on a case-by-case basis. [State Special see A-1]

G-13 Welding on Pressure Systems

For a list of welders certified with the requirements pertaining to welding on pressure systems as per A17.1 Section 3.19.6, contact the State of Utah, Labor Commission, Safety Division at (801) 530-6850 or the Chief Elevator Inspector at (801) 530-6870.

PART IV - ELECTRIC ELEVATORS

E-1 Applicable Safety Code

The applicable safety code for an electric elevator is the Safety Code for Elevators and Escalators, A17.1. The specific year of the code which is applicable to a specific elevator is the code which was in effect as documented in Utah Administrative Code at the time the elevator contract was signed.

E-2 Applicable Safety Code Sections

Electric elevator requirements are found in the following documents

1. Part II of the Safety Code for Elevators and Escalators, A17.1.
2. International Building Code
3. National Electrical Code, NFPA 70 Article 620

Note: The code sections listed above are not meant to be an all-inclusive list of applicable code requirements. Depending on the nature of the activity other safety code requirements may apply. If any question exists as to the applicable safety codes, the Division should be contacted at (801) 530-6850.

E-3 Rope Replacement

Rope replacement is a critical operation in achieving safety in a traction elevator. See ASME A17.1 - 8.6.

1. Splicing Suspension ropes shall not be lengthened or repaired by splicing.
2. Replacement of a Single Rope

If one rope requires replacement due to damage or wear, the entire set of ropes must be replaced. The exception to this is if a single rope is damaged during installation or acceptance testing. If possible, the replacement of a single rope should come from the same master reel as the other ropes. If this is not possible, the replacement rope must come from the same manufacturer and have the same construction and material.

3. Rope Set Replacement

When a set of ropes is replaced, the replacement ropes shall be the same as those specified by the original elevator manufacturer or shall have equivalent strength, weight and design.

E-4 Rope Replacement Criteria

Item 3.29 of the Guide for Inspection of Elevators, Escalators and Moving Walks See ASME A17.2.

PART V - HYDRAULIC ELEVATORS

H-1 Applicable Safety Code

The applicable safety code for a hydraulic elevator is the Safety Code for Elevators and Escalators, A17.1. The specific year of the code which is applicable to a specific elevator is the code which was in effect as documented in Utah Administrative Code at the time the elevator contract was signed.

H-2 Applicable Safety Code Sections

Hydraulic elevator requirements are found in the following documents

1. Part 3 of the Safety Code for Elevators and Escalators, A17.1.
Note: Part 3 will reference appropriate sections of Part 2.
2. International Building Code
3. National Electrical Code, NFPA 70

Note: The code sections listed above are not meant to be an all-inclusive list of applicable code requirements. Depending on the nature of the activity other safety code requirements may apply. If any question exists as to the applicable safety codes, the Division should be contacted at (801) 530-6850.

H-3 Brass Valves in Hydraulic Systems

Due to the susceptibility of brass to being over-torqued and losing pressure-retaining capability the following restrictions apply to brass bodied valves in hydraulic systems:

1. For new installations - no brass-bodied valves are to be used in the hydraulic system.
2. For existing installations - the brass-bodied valves may remain in the system as long as they are not leaking. Any brass-bodied valve which develops a leak shall be replaced with a steel-bodied valve or its equivalent.

H-4 Flexible Hoses

Flexible hoses installed in hydraulic systems shall be replaced every 6 years unless the system is protected by a line safety valve or safeties. Inspectors may require owners to provide evidence of the age of flexible hoses installed in hydraulic systems. If positive proof of flexible hose age cannot be demonstrated, the inspector will specify a reasonable time in which the flexible hoses must be replaced.

H-5 Grooved Pipe Fittings

Grooved pipe fittings are allowed by the Safety Code for Elevators and Escalators, A17.1 for use in hydraulic systems. However, no leakage is allowed. Leaking fittings must be repaired/replaced.

H-6 Pressure Relief Valves

The size of the relief valve shall be sufficient to pass the maximum rated capacity of the pump without raising the system pressure more than 50% above the working pressure.

Elevator owners or elevator companies, as appropriate, shall provide the inspector the working pressure certified upon acceptance testing. The elevator owner or elevator company must be able to prove the component working pressure of pipes, valves, mufflers and fittings used on the pressure side of the hydraulic system.

The set point of the pressure relief valve must be at least 10 psig less than the most limiting component in the hydraulic system.

If two or more pressure relief valves are used and one becomes inoperable the elevator must be shut down and rendered electrically inoperable until the pressure relief valve is repaired or replaced.

Once the pressure relief valve set point is determined and verified, the valve is required to be sealed. If a pressure relief valve seal is found to be broken during an inspection, the proper relieving capacity of the hydraulic system must be verified to the satisfaction of a state inspector.

H-7 Safety Valves

A17.1 - 8.4.11.2 requires a safety valve that will stop and hold the car when hydraulic pressure drops below the minimum operating pressure. This requirement may be met using either of the following methods:

1. Installation of a safety valve as close as possible to the cylinder(s). As close as possible in this instance means no more than twelve (12) inches from the cylinder inlet/outlet and no more than two (2) fittings between the cylinder and the safety valve.
2. Installation of a single safety valve as close as possible to the "Y" or tee in the hydraulic piping for two cylinder hydraulic systems.

H-8 Unprotected Piping

When an elevator installation has hydraulic piping unprotected by a safety valve, the Division will require pipe design calculations for the unprotected piping. These calculations shall be in accordance with A17.1 - 8.2.8.4 and certified by a Utah-licensed professional engineer with an appropriate specialty.

During inspections, Division inspectors will take random thickness readings of unprotected piping and may require that grooved pipe fittings be disassembled as per A17.1 - 3.19.3.2 to inspect and measure the groove depth and thickness of piping remaining in the groove.

H-9 Line Rupture Valves

A17.1 - 3.19.3.3 (1)(f) requires that when flexible hose is used in a hydraulic elevator a line rupture valve must be installed at the cylinder to avoid a sudden drop in pressure should a flexible hose fail. Multiple line rupture valves may need to be installed if one valve cannot provide protection against failure of any of the flexible hoses installed in the system.

H-10 Shunt Trips

A17.1 - 2.8.2.3.2 (c)(3) of the Safety Code for Elevators and Escalators, requires a means to automatically disconnect the main line power supply to an elevator prior to or upon application of water from sprinklers in the machine room or hoistway. Hydraulic elevators and roped hydraulic elevators with a rise of 50 feet or less are exempted from this requirement in Utah.

PART VI - ESCALATORS AND MOVING WALKS

EM-1 Applicable Safety Code

The applicable safety code for an escalator or moving walk is the Safety Code for Elevators and Escalators, A17.1. The specific year of the code which is applicable to a specific elevator is the code which was in effect as documented in Utah Administrative Code at the time the elevator contract was signed.

EM-2 Applicable Safety Code Sections

Escalator or moving walk requirements are found in the following documents

1. Section 6.1 (Escalators) of the Safety Code for Elevators and Escalators, A17.1.
2. Section 6.2 (Moving Walks) of the Safety Code for Elevators and Escalators, A17.1.

Note: Parts VIII and IX will reference appropriate sections of Parts I and II.

3. International Building Code
4. National Electrical Code, NFPA 70

Note: The code sections listed above are not meant to be an all-inclusive list of applicable code requirements. Depending on the nature of the activity other safety code requirements may apply. If any question exists as to the applicable safety codes, the Division should be contacted at (801) 530-6850.

EM-3 Signs

A caution sign shall be located at the top and bottom landings of each escalator or moving walk. This sign shall be readily visible to boarding passengers and shall conform to the requirements of A17.1 - 6.1.6.9.

EM-4 Combplates

Combplates are essential to escalator and moving walk safety. Owners should immediately replace combplates with missing teeth. Owners should also frequently verify that the vertical adjustment of the combplate does not create a tripping hazard for passengers.

EM-5 Step/Skirt Performance Index Test

The purpose of the test is to determine when conditions exist that could result in a passenger getting caught between escalator skirt and a moving step. When the index exceeds the criteria in 8.6.8.3.3 established in A17.1, the Division will require corrective action(s) be taken.

PART VII - DISABLED PERSON LIFTS

DL-1 Applicable Safety Code

The applicable safety code for a disabled person lift (inclined stairway lift, inclined wheelchair lift or vertical wheelchair lift) is the Safety Standard for Platform Lifts and Stairway Chairlifts, A18.1 or Safety Code for Elevators and Escalators, A17.1 for lifts installed prior to the adoption date of A18.1. The specific year of the code which is applicable to a specific elevator is the code which was in effect as documented in Utah Administrative Code at the time the elevator contract was signed.

DL-2 Applicable Safety Code Sections

Disabled person lift requirements are found in the following documents

1. Safety Standard for Platform Lifts and Stairway Chairlifts, A18.1 or
 - a. Part XX of the Safety Code for Elevators and Escalators, A17.1 (for lifts installed prior to A18.1 adoption date).
2. International Building Code
3. National Electrical Code, NFPA 70
4. ICC/ANSI A117.1-1998 Accessible and Usable Buildings and Facilities

Note: The code sections listed above are not meant to be an all-inclusive list of applicable code requirements. Depending on the nature of the activity other safety code requirements may apply. If any question exists as to the applicable safety codes, the Division should be contacted at (801) 530-6850.

DL-3 Disabled Person Lift Application

Section 1108.7 International Building Code: Outlines when a platform lift may be used in new construction.

Section 1003.2.13.4 International Building Code: Platform (wheelchair) lifts shall not serve as part of accessible means of egress, except where allowed as part of a required accessible route in Section 1108.7.

Section 3408.7.2 International Building Code: Platform (wheelchair) lifts complying with ICC/A117.1 and installed in accordance with ASME A17.1 shall be permitted as a component of an accessible route in existing buildings.

(The State of Utah, Labor Commission has adopted A18.1 to replace the requirements of A17.1 for Platform Lifts.)

PART VIII - OTHER ELEVATORS

O-1 Limited-Use, Limited-Application (LULA) Elevators

The local building official has the responsibility for determining whether a limited-use, limited application elevator (LULA) is appropriate for a proposed application. The Division will assure that the elevator meets the safety code requirements of ASME A17.1.

O-2 Belted Man-Lifts

The safety code for the belted man-lifts is the Safety Standard for Manlifts, ASME A90.1.

Man-lifts are designed to be used only by authorized personnel who are trained in their proper use. If an inspector finds a man-lift being used by the general public, the man-lift will be ordered out of service until the owner satisfactorily demonstrates proper usage of the man-lift.

A man-lift belt that has become torn shall not be repaired in any manner and put back into service. It must be replaced.

O-3 Rack and Pinion Elevators

Car Safeties

A17.1 - 4.1.9 of the Safety Code for Elevators and Escalators, A17.1 Section 4.1 allows a rack and pinion elevator car to be provided with a safety identified by A17.1 - 2.17.5 or a rack and pinion safety. If a rack and pinion safety is selected, the following guidance applies:

1. Exchange the rack and pinion safety device at the frequency of 5 years or as established by the manufacturer whichever is less.
2. A full-load safety test is required when the rack and pinion safety device is replaced.

Rack Tower

The structural stability and soundness of the rack tower is paramount for a rack and pinion elevator. To assure that this soundness, state inspectors will perform the following:

1. Spot check of rack tower fasteners.
2. Spot check of tower anchoring devices
3. Thorough review of maintenance logs for the fasteners and anchoring devices

APPENDIX A

UTAH CODE: CHAPTER 34A - ELEVATOR AND ESCALATOR SAFETY ACT

34A-7-201 Title.

This part is known as the "Elevator and Escalator Safety Act."

34A-7-202 Definitions.

As used in this part:

- (1) "Division" means the Division of Safety within the commission.
- (2)(a) "Elevator" means a hoisting and lowering mechanism:
 - (i) equipped with a car or platform; and
 - (ii) that moves in guides in a substantially vertical direction
- (2)(b) "Elevator" does not mean:
 - (i) a device used for the sole purpose of elevating or lowering materials such as:
 - (A) a dumbwaiter;
 - (B) a conveyor; or
 - (C) a chain, bucket or construction hoist;
 - (ii) a tiering, piling, feeding, or similar machine giving service within only one story;
 - (iii) a portable platform;
 - (iv) a stage lift
 - (v) a device installed in a single family dwelling;
 - (vi) a device installed in a facility owned and operated by the federal government; or
 - (vii) an amusement ride, as defined in Section 78-27-61.
- (3)(a) "Escalator" means a stairway, moving walkway, or runway that is:
 - (i) power-driven;
 - (ii) continuous; and
 - (iii) used to transport one or more individuals.
- (3)(b) "Escalator" does not mean:
 - (i) a device used for the sole purpose of elevating or lowering materials such as:
 - (A) a dumbwaiter;
 - (B) a conveyor; or
 - (C) a chain, bucket or construction hoist;
 - (ii) a device installed in a single family dwelling;
 - (iii) a device installed in a facility owned and operated by the federal government; or
 - (iv) an amusement ride, as defined in Section 78-27-61.
- (4) "Owner or operator" means a person who owns, controls, or had the duty to control the operation of an elevator or escalator.
- (5) "Safety code" means the one or more codes adopted by the division in accordance with Subsection 34A-7-203(6) to be used in inspecting elevators and escalators.

34A-7-203. Requirements for operating an elevator or escalator - Inspection - Division duties.

- (1) An elevator or escalator may not operate in this state unless:
 - (a) the owner or operator of the elevator or escalator obtains an inspection certificate under Subsection (3); and
 - (b) the inspection certificate described in Subsection (1)(a) has not:
 - (i) expired under Subsection (3); or
 - (ii) been suspended under Section 34A-7-204.

- (2) An elevator or escalator used or proposed to be used in this state shall be inspected as to its safety to operate in accordance with the safety code:
 - (a) every two years; or
 - (b) more frequently than every two years if the division determines that more frequent inspections are necessary.
- (3)(a) If upon inspection an elevator or escalator is safe to operate in accordance with the safety code, the inspector shall issue to the owner or operator an inspection certificate.
- (3)(b) An inspection certificate issued under Subsection (3)(a) shall expire two years from the date the inspection certificate is issued.
- (4) An inspector employed by the division under this part shall at all times meet nationally recognized standards of qualifications for inspectors of elevators and escalators, as defined by rule by the division.
- (5) The owner or operator of an elevator or escalator that is used in the state shall pay to the commission a fee in amounts set by the commission pursuant to Section 63-38-3.2:
 - (a) for inspection; and
 - (b) for an inspection certificate.
- (6) The division:
 - (a) shall provide for the inspection of elevators and escalators in accordance with this section;
 - (b) shall adopt by rule one or more nationally recognized standards or other safety codes to be used in inspecting elevators or escalators; and
 - (c) may adopt amendments to the safety code adopted under Subsection (6)(b).

34A-7-204. Suspension of inspection certificates - Violation of part - Misdemeanor - Injunction

- (1)(a) The division may suspend an inspection certificate issued under Section 34A-7-203 if it finds that the elevator or escalator for which the inspection certificate is issued does not meet the requirements of the safety code.
- (1)(b) The suspension of an inspection certificate shall continue in effect until:
 - (i) the elevator or escalator conforms to the safety code; and
 - (ii) a new inspection certificate is issued.
- (2) It is a violation of this part and a class C misdemeanor to operate an elevator or escalator in this state if:
 - (a) an inspection certificate for the elevator or escalator has not been issued;
 - (b) (i) an inspection certificate for the elevator or escalator is suspended; and
(ii) the requirements of Subsection (1)(b) are not met; or
 - (c) the elevator or escalator is knowingly operated while constituting a safety hazard.
- (3) The division may bring a lawsuit in any court of this state to enjoin the operation of any elevator or escalator in violation of this part.

APPENDIX B

R616. Labor Commission, Safety.

R616-3. Elevator Rules.

R616-3-1. Authority.

This rule is established pursuant to Section 34A-7-201 for the purpose of the Labor Commission ascertaining, fixing, and enforcing reasonable standards regarding elevators for the protection of life, health, and safety of the general public and employees.

R616-3-2. Definitions.

- A. "ANSI" means the American National Standards Institute, Inc.
- B. "ASME" means the American Society of Mechanical Engineers.
- C. "Commission" means the Labor Commission created in Section 34A-1-103.
- D. "Division" means the Division of Safety of the Labor Commission.
- E. "Elevator" means a hoisting and lowering mechanism equipped with a car or platform and that moves in guides in a substantially vertical direction.
- F. "Escalator" means a stairway, moving walkway, or runway that is power driven, continuous and used to transport one or more individuals.

R616-3-3. Safety Codes for Elevators.

The following safety codes are adopted and incorporated by reference within this rule:

- A. ASME A17.1, Safety Code for Elevators and Escalators, 2000 ed., with 2002 Addenda issued May 4, 2002, and amended as follows:
 - 1. Delete 2.2.2.5;
 - 2. Amend 8.6.5.8 as follows: Existing hydraulic cylinders installed below ground when found to be leaking shall be replaced with cylinders conforming to 3.18.3.4 or the car shall be provided with safeties conforming to 3.17.1 and guide rails, guide rail supports and fastenings conforming to 3.23.1. This code is issued every three years with annual addenda. New issues and addenda become mandatory only when a formal change is made to these rules. Elevators are required to comply with the A17.1 code in effect at the time of installation.
- B. ASME A17.3 - 2002 Safety Code for Existing Elevators and Escalators. This code is adopted for regulatory guidance only for elevators classified as remodeled elevators by the Division of Safety.
- C. ASME A90.1-1992, Safety Standard for Belt Manlifts.
- D. ANSI A10.4-1990, Safety Requirements for Personnel Hoists and Employee Elevators for Construction and Demolition Operations.
- E. 2000 International Building Code
- F. ICC/ANSI A117.1-1998 Accessible and Usable Buildings and Facilities, sections 407 and 408, approved February 13, 1998.
- G. ASME A18.1-1999 Safety Standard For Platform Lifts And Stairway Chairlifts, issued July 26, 1999, with A18.1a 2001 addenda issued March 26, 2001.

R616-3-4. Inspector Qualification.

- A. Any person who performs elevator safety inspections must have a current certification as a Qualified Elevator Inspector as outlined in ASME QEI-1, Qualifications for Elevator Inspectors.

R616-3-5. Modifications and Variances to Codes.

- A. In a case where the Division finds that the enforcement of any code would not materially increase the safety of employees or general public, and would work undue hardships on the owner/user, the Division may allow the owner/user a variance. Variances must be in writing to be effective and can be revoked after reasonable notice is given in writing.
- B. Persons who apply for a variance to a safety code requirement must present the Division with the rationale as to how their elevator installation provides safety equivalent to the applicable safety code.
- C. No errors or omissions in these codes shall be construed as permitting any unsafe or unsanitary condition to exist.
- D. The Commission may, by rule, add or delete from the applicable safety codes for any good and sufficient safety reason.
- E. In the event that adopted safety codes are in conflict with one another, the ASME A17.1, Safety Code for Elevators and Escalators will take precedence. The exception to this is for compliance with the accessibility guidelines of Pub. L. No. 101-336 "The Americans with Disability Act of 1990". In this instance, the International Building Code standards adopted in R616-3-3 for accessibility as applied to elevators take precedence over ASME A17.1.

R616-3-6. Exemptions.

- A. These rules apply to all elevators in Utah with the following exemptions:
 - 1. Private residence elevators installed inside a single family dwelling. Common elevators which serve multiple private residences are not exempt from these rules.
 - 2. Elevators in buildings owned by the Federal government.
- B. Owners of elevators exempted in R616-3-5.A. may request a safety inspection by Division of Safety inspectors. Code non-compliance items will be treated as recommendations by the inspector with the owner having the option as to which, if any, are corrected. Owners requesting these inspections will be invoiced at the special inspection rate. If the owner requests a State of Utah Certificate to Operate for the elevator, all of the recommendations must be completed to the satisfaction of the inspector and the owner will be invoiced the appropriate certificate fee.

R616-3-7. Inspection of Elevators, Permit to Operate, Unlawful Operations.

- A. It shall be the responsibility of the Division to make inspections of all elevators when deemed necessary or appropriate.
- B. Elevator inspectors shall examine conditions in regards to the safety of the employees, public, machinery, drainage, methods of lighting, and into all other matters connected with the safety of persons using or in close proximity to each elevator, and when necessary give directions providing for the better health and safety of persons in or about the same. The owner/user is required to freely permit entry, inspection, examination and inquiry, and to furnish a guide when

- necessary.
- C. If the Division finds that an elevator complies with the applicable safety codes and rules, the owner/user shall be issued a Certificate of Inspection and Permit to Operate.
 - 1. The Certificate of Inspection and Permit to Operate is valid for 24 months.
 - 2. The Certificate of Inspection and Permit to Operate shall be displayed in a conspicuous location for the entire validation period. If the certificate is displayed where accessible to the general public, as opposed to being in the elevator machine room, it must be protected under a transparent cover.
 - D. If the Division finds an elevator is not being operated in accordance with the safety codes and rules, the owner/user shall be notified in writing of all deficiencies and shall be directed to make specific improvements or changes as are necessary to bring the elevator into compliance.
 - E. Pursuant to Section 34A-7-204, if the improvements or changes are not made within a reasonable time, by agreement of the division and the owner, the elevator is being operated unlawfully.
 - F. If the owner/user refuses to allow an inspection to be made, the elevator is being operated unlawfully.
 - G. If the owner/user refuses to pay the required fee, the elevator is being operated unlawfully.
 - H. If the owner/user operates an elevator unlawfully, the Commission may order the elevator operation to cease pursuant to Section 34A-1-104.
 - I. If, in the judgment of an elevator inspector, the lives or safety of employees or public are, or may be, endangered should they remain in the danger area, the elevator inspector shall direct that they be immediately withdrawn from the danger area, and the elevator removed from service until repairs have been made and the elevator has been brought into compliance.

R616-3-8. Inclined Wheelchair Lift Headroom Clearance.

- A. Headroom clearance for inclined wheelchair lifts throughout the range of travel shall be not less than 80 inches (2032 mm) as measured vertically from the leading edge of the platform floor.
- B. For existing facilities only, in the event that it is not technically or economically feasible to provide other means of access for disabled persons, inclined wheelchair lifts may be installed if all of the following conditions are met:
 - 1. The appropriate building inspection jurisdiction approves the use of an inclined wheelchair lift for the specific application.
 - 2. Headroom clearance throughout the range of travel shall be not less than 60 inches as measured vertically from the leading edge of the platform floor.
 - 3. The passenger restriction sign as required by ASME A18.1 3.1.2.3 shall be amended as follows: "PHYSICALLY DISABLED PERSONS ONLY. NO FREIGHT. HEADROOM CLEARANCE IS LIMITED. USE ONLY IN THE SITTING POSITION".

R616-3-9. Valves in Hydraulic Elevator Operating Fluid Systems.

- A. Due to the potential loss of pressure retaining capability when over torqued, bronze-bodied valves shall not be installed in the hydraulic systems of a hydraulic elevator.
- B. This requirement is in effect for all new installations and remodel installations involving the hydraulic system.
- C. If a bronze-bodied valve installed on an existing elevator begins to leak, that valve shall be replaced by a steel-bodied valve.

R616-3-10. Hydraulic Elevator Piping.

- A. This rule establishes minimum standards for hydraulic fluid piping in hydraulic elevators. The piping specifications referred to in this rule are governed by ASME or ASTM piping specifications (e.g. ASME Specification SA-53 Table X2.4).
- B. Hydraulic elevators not incorporating a safety valve may use schedule 40 piping.
- C. For newly installed hydraulic elevators that do incorporate a safety valve:
 - 1. Where piping is protected by the safety valve, schedule 40 piping may be used;
 - 2. Where grooved or threaded connections are used in piping that is unprotected by the safety valve, i.e. between the safety valve and the hydraulic jack(s), nominal pipe size (NPS)3 or schedule 80 piping may be used;
 - 3. Where piping is unprotected by the safety valve, but welded or bolted flange connections are used, schedule 40 piping may be used.

R616-3-11. Shunt Trips in Elevator Systems.

- A. The means (shunt trip) to automatically disconnect the main line power supply to the elevator discussed in 2.8.2.3.2 of A17.1 is not required for hydraulic elevators with a rise of 50 feet or less.

R616-3-12. Hoistway Vents.

Hoistway ventilation as outlined in the International Building Code is under the jurisdiction of the local building official.

R616-3-13. Hand Line Control Elevators.

- A. Operation of a hand line control elevator is not permitted.
- B. Owners of hand line control elevators are required to render the elevator electrically and mechanically incapable of operation.

R616-3-14. Remodeled Elevators.

- A. When an elevator is classified as a remodeled (modernized) elevator by the Division, the components of the elevator involved in the modernization must comply with the standards of the latest version of A17.1 and A17.3 in effect at the time the remodeling of the elevator commences.
- B. When a hydraulic elevator has been remodeled it is considered a new installation.

R616-3-15. Fees.

- A. Fees to be charged as provided by Section 34A-1-106 and 63-38-3.2 shall be adopted by the Labor Commission and approved by the Legislature pursuant to Section 63-38-3(2).
- B. The fee for the initial certification permit shall be invoiced to and paid by the company or firm installing the elevator.
- C. The renewal certification permit shall be invoiced to and paid by the owner/user.
- D. Any request for a special inspection shall be invoiced to and paid by the person/company requesting the inspection, at the hourly rate plus mileage and expenses.

R616-3-16. Notification of Installation, Revision or Remodeling.

- A. Before any elevator covered by this rule is installed or a major revision or remodeling begins on the elevator, the Division must be advised at least one week in advance of such installation, revision, or remodeling unless emergency dictates otherwise.

R616-3-17. Initial Agency Action.

Issuance or denial of a Certificate of Inspection and Permit to Operate by the Division, and orders or directives to make changes or improvements by the elevator inspector are informal adjudicative actions commenced by the agency per Section 63-46b-3.

R616-3-18. Presiding Officer.

The elevator inspector is the presiding officer referred to in Section 63-46b-3. If an informal hearing is requested pursuant to R616-3-18, the Commission shall appoint the presiding officer for that hearing.

R616-3-19. Request for Informal Hearing.

Within 30 days of issuance, any aggrieved person may request an informal hearing regarding the reasonableness of a permit issuance or denial or an order to make changes or improvements. The request for hearing shall contain all information required by Sections 63-46b-3(a) and 63-46b-3(b).

R616-3-20. Classification of Proceeding for Purpose of Utah Administrative Procedures Act.

Any hearing held pursuant to R616-3-18 shall be informal and pursuant to the procedural requirements of Section 63-46b-5 and any agency review of the order issued after the hearing shall be per Section 63-46b-13. An informal hearing may be converted to a formal hearing pursuant to Subsection 63-46b-4(3).

KEY: elevators*, certification, safety

January 15, 2002

Notice of Continuation January 10, 2002

34A-1-101 et seq.

APPENDIX C

Labor Commission Safety Division Variance Request

Requesting Organization:		Date:
Contact Name:	Address:	
Telephone:		

Type of Variance: <input type="checkbox"/> Boiler/Pressure Vessel <input type="checkbox"/> Elevator
Code Requirements:
<input type="checkbox"/> Continuation Sheet Attached

Description of Requested Variance:
<input type="checkbox"/> Supporting Documentation or Continuation Sheets Attached

Reviewer	Recommendation	Signature
<input type="checkbox"/> Boiler Inspector	<input type="checkbox"/> Approve <input type="checkbox"/> Approve with Modifications* <input type="checkbox"/> Disapprove	
<input type="checkbox"/> Chief Boiler Inspector	<input type="checkbox"/> Approve <input type="checkbox"/> Approve with Modifications* <input type="checkbox"/> Disapprove	
<input type="checkbox"/> Elevator Inspector	<input type="checkbox"/> Approve <input type="checkbox"/> Approve with Modifications* <input type="checkbox"/> Disapprove	
<input type="checkbox"/> Chief Elevator Inspector	<input type="checkbox"/> Approve <input type="checkbox"/> Approve with Modifications* <input type="checkbox"/> Disapprove	
* Attach Continuation Sheet to describe modifications		

Disposition	<input type="checkbox"/> Approve <input type="checkbox"/> Approve with Modifications <input type="checkbox"/> Disapprove
<div style="border-bottom: 1px solid black; width: 150px; margin-bottom: 5px;"></div> Director of Safety	Date:

Utah Elevator Compliance Manual - Revision 1c

**Utah Labor Commission
Safety Division
Variance Request Supplemental Information**

Type of variance requested: <input type="checkbox"/> Boiler <input type="checkbox"/> Elevator		
Location:		
Architect:		
Name:	Address:	Telephone:
Engineering Firm:		
Name:	Address:	Telephone:
Installation Contractor:		
Name:	Address:	Telephone:
Building Inspector:		
Name:	Address:	Telephone:
Project Information:		
Design Completion Date:	Plan Review Conducted: <input type="checkbox"/> Yes <input type="checkbox"/> No	Installation Completion Date:

Comments:
